

State of the System – Summer 2024/2025 Outlook Briefing

Mteto Nyati
Chairman

26th August 2024



Operational



Systemic Issues

- **Unreliable** plant resulting in poor performance
- **Grid constraints** to connect additional capacity
- **Dysfunctional** organizational **culture**

Interventions

- Develop and implement **Generation Recovery Plan**
- **Curtailment and grid capacity allocation rules; Transmission Development Plan execution**
- **Appoint strong and inspirational leaders (at all levels)**
- **High performance & values driven culture**

Financial



- Weak balance sheet due to **high debt burden**
- Tariff **not reflective of costs**
- Revenue pressure – **non-payment & declining sales**

- **National Treasury debt relief programme, including municipal debt interventions**
- Improving revenue collection and cost driving cutting initiatives
- Migrate towards unbundled cost reflective tariff structure
- **Stop or minimise loadshedding**

Sustainability



- **Outdated** vertically integrated business model
- The need to transition into **clean energy**
- Prevalent **fraud, corruption and criminality**

- **Drive Legal separation of Eskom – unbundle Transmission, Distribution & Generation**
- Pursue clean energy project pipeline, JET – including partnerships
- **Enhance governance and controls to curb fraud, corruption and criminality**

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Dan Marokane
Group Chief Executive

Aug 2024



Key takeaways and reflections for the Summer 24/25 outlook

Update on the Generation Recovery Plan

Eskom's direction of travel to achieve long term success

Dan Marokane
Group Chief Executive

Bheki Nxumalo
Group Executive - Gx

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- Since the 2024/25 winter outlook delivered in April 2024, our performance was consistently above expectation – **there is a structural shift in the performance of the fleet**
 - **150+ consecutive days of NO loadshedding**
 - **Over R10+ billion Y-O-Y reduction in diesel utilisation costs**
 - Average **unplanned capacity losses of 12.4GW compared to the 15.5GW likely scenario** at the time (3.1GW better than expected – 20% improvement)
 - Positive impact on economic outlook due to the sustained EAF and the growth in RE capacity – Bank of America projects a **potential ~2% growth to the South African economy***
 - **Improved staff morale** on the back of the performance to date & happier South Africans!
- We are institutionalising the interventions of the Generation Recovery Plan - **closing out actions from various independent reports remains the priority**
- Despite supply exceeding demand, **load reduction** has been necessary to protect the network and people in areas **with rampant illegal connections**
- Given the improved fleet performance, Summer 2024/25 outlook base case planning is premised on:
 - **Unplanned outage scenarios revised – ranging between 13 000MW to 15 000MW** (previous summer 2023/24 - 14 500MW to 17 000MW)
 - **No loadshedding expected if unplanned losses remain below 13GW** and at worst, stage 2 expected if unplanned losses reach 15 000MW
- A sustained EAF improvement (67.02% July MTD) together with an expected **~2500MW of additional capacity** by March 2025 will guarantee that loadshedding is implemented only in exceptional circumstances going forward
- **These positive results allow us to focus on the implementation of our long-term strategy** aimed at delivering a competitive and sustainable future-proof Eskom

#WeCanEndLoadsheddingTogether

• Bank of America - <https://www.businesslive.co.za/bd/economy/2024-07-05-bank-of-america-says-gdp-to-grow-2-if-eskom-maintains-momentum>

• Acronyms: RE – Renewable Energy; EAF – Energy Availability Factor; MTD – Month-to-date; FY – Financial Year Figures as at 7 August 2024:

Reflections: Eskom's performance has improved significantly since April 2024, setting a good base to build on



150+ days

of NO loadshedding



R10+ bn

In reduced diesel spend (1 April –15 Aug 2024 vs same period last year)



~7GW

Reduction in unplanned load losses (18GW in May 23 vs 11.3GW in July 24)



67.02% EAF

Jul MTD - improved from 57% as at April MTD by leveraging Original Equipment Manufacturers, People and Processes



Skills Growth

Staff turnover down to 1.5%
Staff morale index up from 3.6 to 3.9
2000+ learner pipeline across Eskom,
80% technical (artisans, engineers, operators and technicians)



10.33%

Planned maintenance, compared higher year-on-year than the previous two years

Reflections: Our performance exceeded the winter outlook scenarios – lower unplanned outages, 60% reduction in diesel costs and NO LOADSHEDDING



XXX Change to outlook Likely scenario

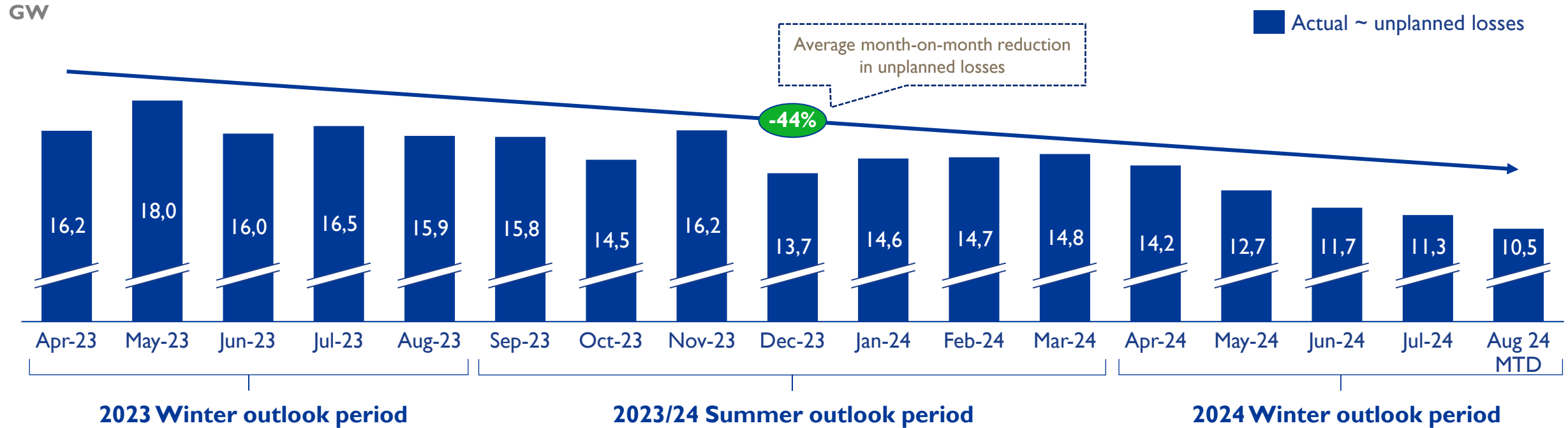
Winter 2024 – 1 April 2024 to 31 August 2024							
Scenarios		Base Case: 14 000MW unplanned outages		Base Case + 1500MW: 15 500MW unplanned outages		Base Case + 3000MW: 17 000MW unplanned outages	
Number of LS days		5 Days		65 0 Days		128 Days	
Diesel costs		R 3.3bn		R 8.8bn R3.48bn*		R 16.0bn	
Highest stage of LS		Stage 1		Stage 2 Stage 0		Stage 5	
Month	Peak Residual Forecast	Load shedding days	Max load shedding stage	Load shedding days	Max Load shedding stage	Load shedding days	Max Load shedding stage
April	29 354	0	0	15 0	2 0	25	5
May	31 205	0	0	10 0	1 0	23	2
June	32 204	2	1	8 0	2 0	22	5
July	32 182	0	0	19 0	2 0	31	5
August	31 336	3	1	13 0	2 0	27	5

The likely scenario accounted for 15.5GW of unplanned losses, however due to success with the Generation Recovery Plan, unplanned losses were on average 12.4GW during the winter period

Exceeded planned maintenance of 3677MW, with the actual being 4799MW on average over the winter period

Reflections: There is a consistent decline in unplanned load losses on the back of disciplined execution of maintenance

Gx actual performance on unplanned losses¹



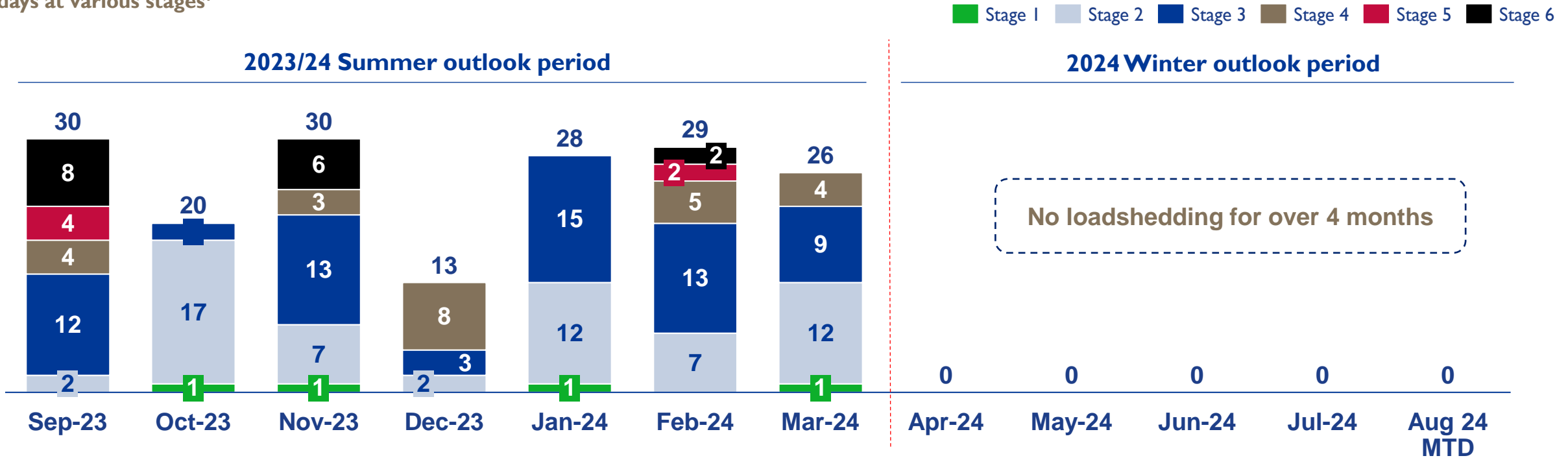
- **Downward trend** observed in unplanned losses **especially at the priority 8 stations** (Tutuka, Majuba, Kusile, Kendal, Matla, Duvha, Arnot and Kriel)
- **Current unplanned losses of 12.5GW** are better than anticipated in the Winter outlook, as a result, no loadshedding was experienced over the winter period
- Year-on-year overall **unit trips are declining**, indicating that the fleet is becoming more reliable – **19.2% reduction between FY23 vs. FY24**
- Comparing the **average load losses in April – Aug 2023 (16.5GW) vs. 2024 (12.5 GW)** shows an improvement of approximately **4GW**, which further illustrates that the **reduction in loadshedding is a result of improved plant performance**

Reflections: The continued improvement in Generation plant performance has resulted in 150+ days of continued no loadshedding



Overview of loadshedding intensity and frequency between Sep 2023 and Jul 2024

of days at various stages¹



- An **average 17% month-on-month reduction in unplanned losses** during the Summer 2023/24 period, as well as the return of units - as part of Eskom's recovery plan - resulted in **no loadshedding being implemented since April**
- This performance has been **sustained throughout the winter period**, with unplanned losses falling to a **12-month low of 11.3GW in July 2024**
- Between March and August 2024, **Tutuka, Kendal and Kriel showed the greatest improvement in reducing load losses**
- **Growth in Renewables** – estimated 9.6GW to 11 GW over the last year

Aug Month-to-date (MTD) as at 12 Aug 2024

Source: 2023/2024 Load Shedding and Curtailment events Notes: 1: Indicates maximum stage per day

Load Shedding

Generation



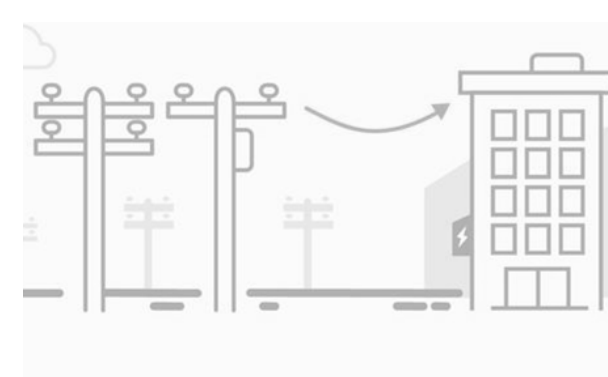
- When there is **insufficient generation capacity** to meet demand
- Loadshedding implemented to **protect the country** from a black out

Transmission



Load Reduction

Distribution



- When the **customer demand is higher than what the local equipment can withstand**
- Load reduction implemented to **protect equipment** (transformers) and **people** (explosions)

Eskom is working together with SALGA and the Ministries to resolve the structural challenges facing the distribution industry

WE NEED COMMUNITIES TO HELP US PROTECT OUR EQUIPMENT FROM CRIMINALITY

Summer 2024/25 OUTLOOK - No loadshedding expected for unplanned outages below 13 000MW, and for worst case, stage 2 loadshedding should unplanned outages reach 15 000MW



Likely scenario

Summer 2024/25 – 1 September 2024 to 31 March 2025 (212 days)

Scenarios		Base Case: 13 000MW UCLF		Base Case + 1000MW: 14 000MW UCLF		Base Case + 2000MW: 15 000MW UCLF	
Number of LS days OCGT costs		0 Days R 3.5bn		21 Days R 10.3bn		115 Days R 23.0bn	
Highest stage of LS		-		Stage 1		Stage 2	
Month	Peak Residual Forecast	Load shedding days	Max Load shedding stage	Load shedding days	Max Load shedding stage	Load shedding days	Max Load shedding stage
September	29 389	0	0	1	1	16	2
October	28 928	0	0	0	0	16	1
November	28 868	0	0	1	1	13	2
December	28 398	0	0	5	1	17	2
January	28 105	0	0	3	1	16	2
February	28 486	0	0	1	1	16	2
March	28 967	0	0	10	1	21	2

Our Summer 2024/25 base case is revised downwards by 1 500MW relative to the previous summer outlook which ranged from 14 500MW to 17 000MW with loadshedding stages 6 and 7

Summer forecast **planned maintenance of ~6700MW (14%)** is in line with the levels of maintenance of ~6600MW in the previous period

Key takeaways and reflections for the Summer 24/25 outlook

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Group Chief Executive

Update on the Generation Recovery Plan

Bheki Nxumalo
Group Executive - Gx

Eskom's direction of travel to achieve long term success

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The focus on the Recovery Plan will ensure sufficient Generation capacity is recovered sustainably

■ Implementation complete
 ■ Implementation in progress

1 Set up for success

■ Set up the enabling structures

- Turnaround plans
- Generation recovery office
- Key enablers

■ Guard performance at current flagship stations

- Medupi, Lethabo, Matimba and Peaking

■ Focus on the Priority stations

- Tutuka, Duvha, Majuba, Matla, Kendal, Arnot, Kriel
- Kusile removed from priority list

■ Execution of Koeberg 1 Outage

■ Source external specialised skills

2 Execute excellence

Actions for FY24

- Successful execution of Koeberg 1
- Sustain excellent Medupi performance
- Embed principles of operational excellence
- Address internal skills gaps
- Prevent outage slips
- Return of Kusile 1, 2 and 3
- Synchronisation of Kusile 5
- Review plant shutdown dates based on system requirements

65%¹
EAF

3 World class performance

70%¹
EAF

Actions for FY25 onwards

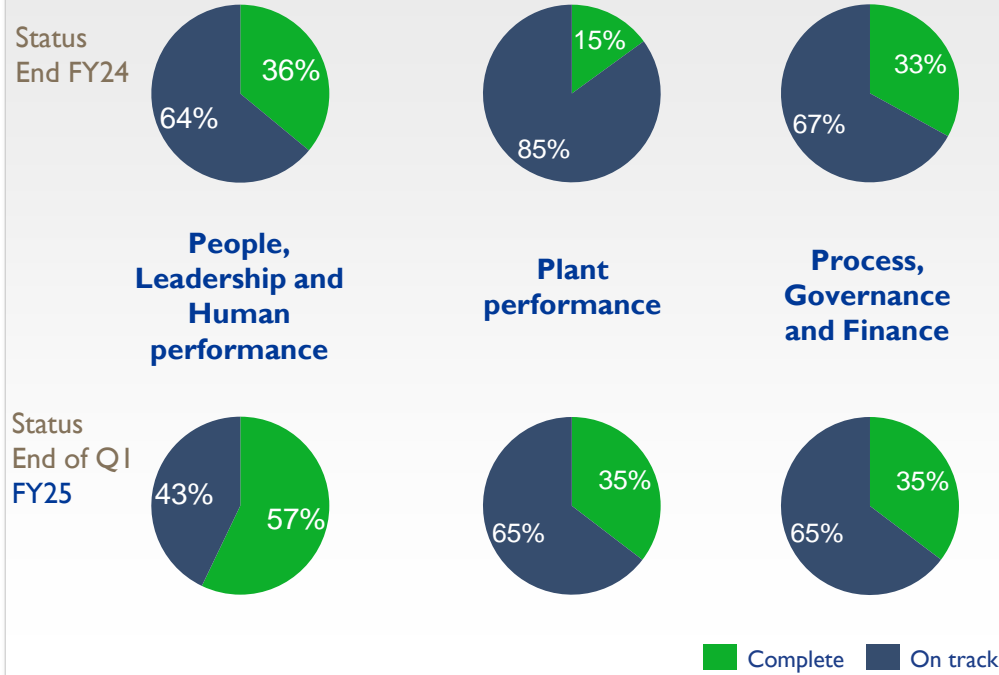
- Return of Medupi 4 from long term forced outage
- Commercial operation of Kusile 5
- Synchronisation of Kusile 6
- Continuous focus on current and future skills
- Ensure successful implementation of Koeberg 2 steam generator and long-term operating projects



Continuous execution of Culture transformation and Strategic Levers as per the Generation Recovery Plan

Significant progress has been made to drive the implementation and close out of actions from various independent reports

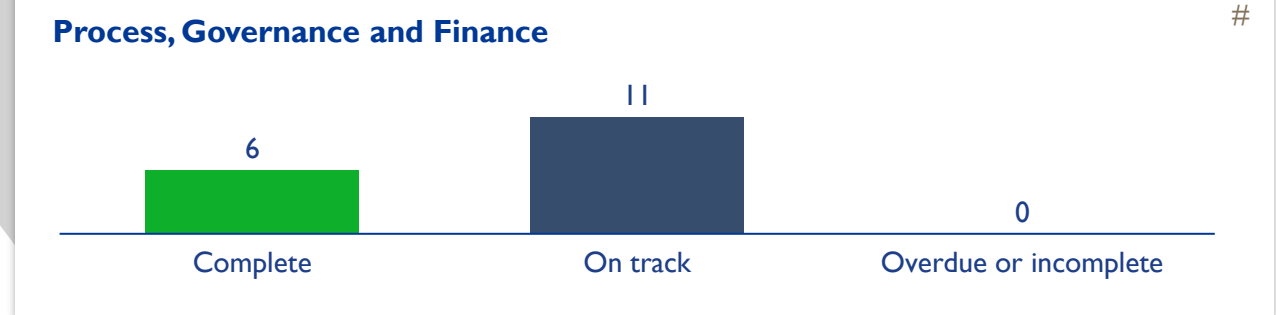
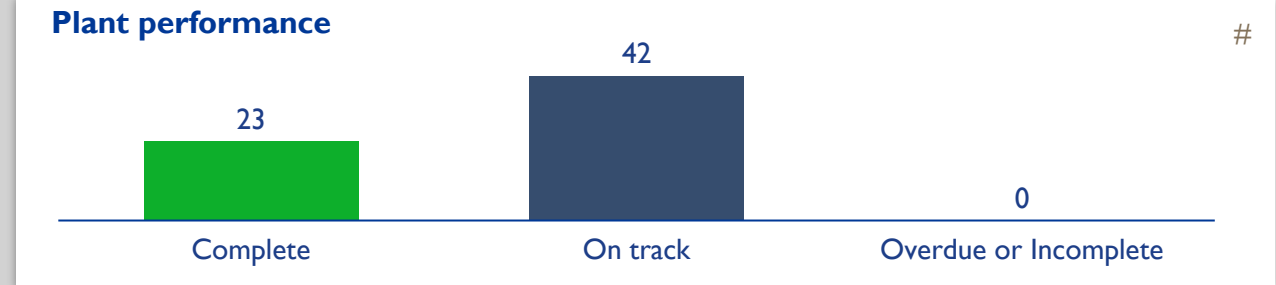
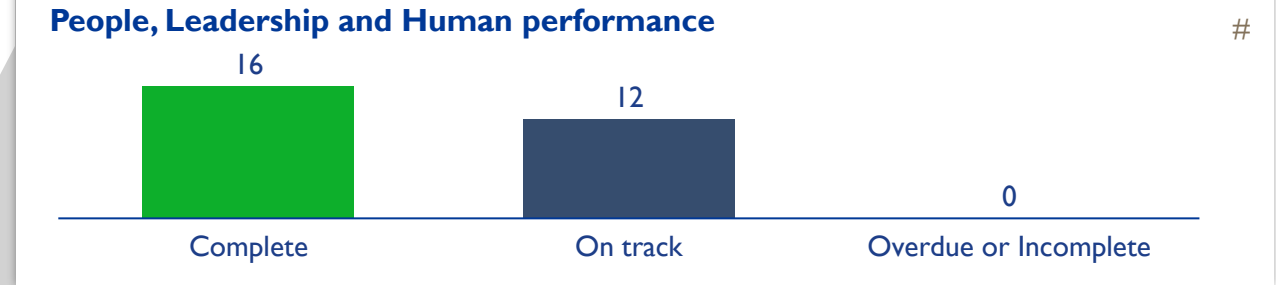
Status of initiatives/findings from independent reviews



Highlights

- 😊 Progress on all 3 dimensions in completing actions – completed actions almost doubled from April to end Q1
- 😊 Biggest progress made in people and plant performance areas which is evident in the OE survey results and the improved recent plant performance (EAF)

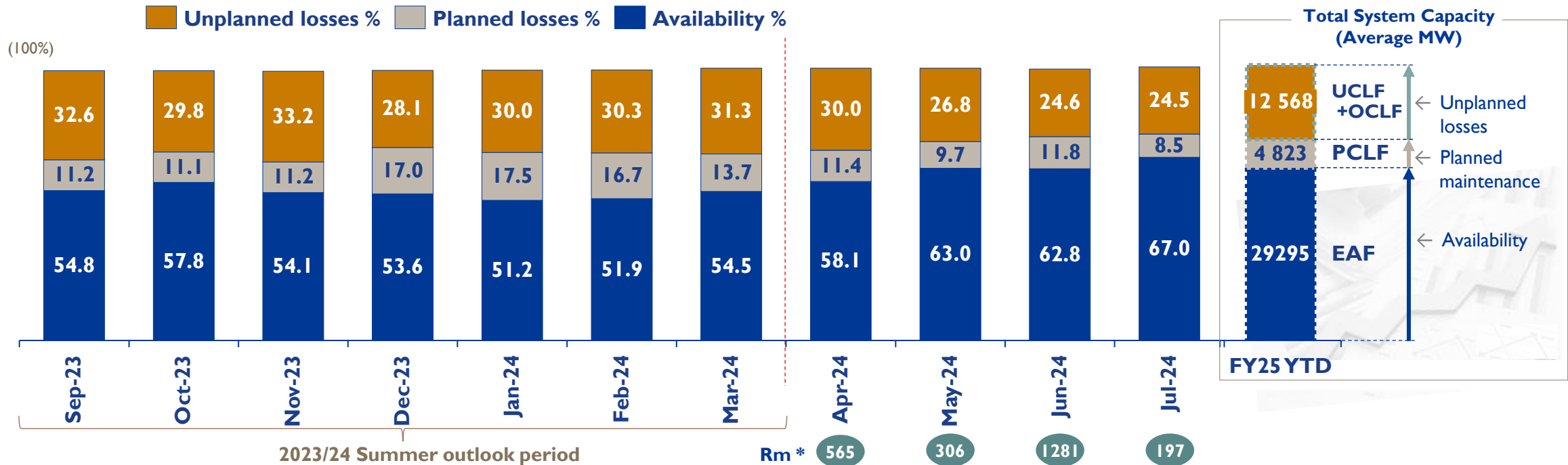
Q1 action status per area



There has been a steady increase in plant availability and decrease in spend on expensive OCGT generation

xx Denotes MTD figures for Eskom Diesel spend

Gx overview of monthly and YTD performance



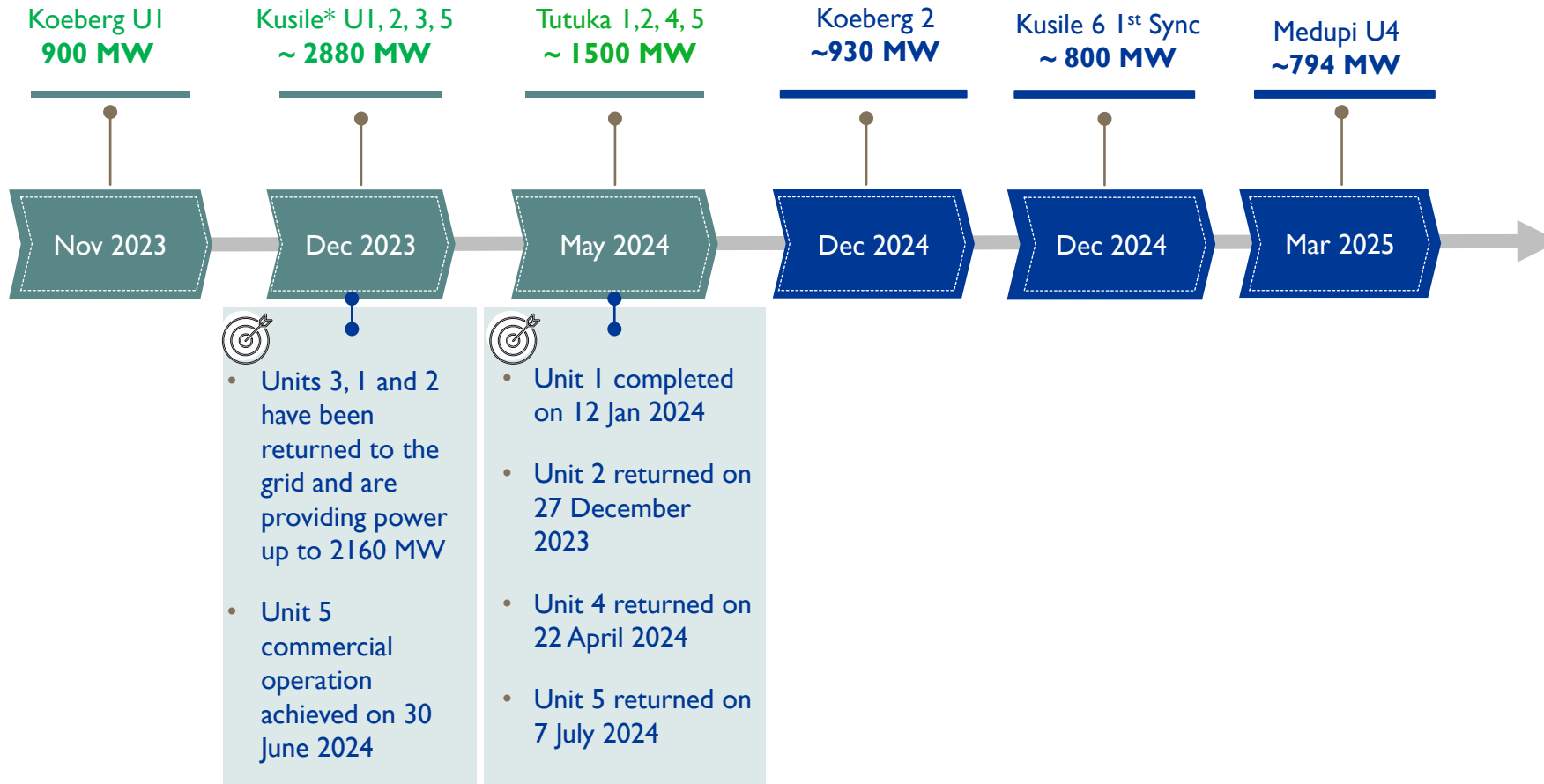
- Eskom Generation’s **plant availability** has been **trending upwards**, since the **beginning of FY25**, supported by **decreasing unplanned losses**
- The increased availability has resulted in **decreasing spend** on **expensive OCGT generation** – OCGT’s are part of the energy mix utilised for meeting peak demand as required by the System Operator
- Generation has **been able to maintain the unplanned losses** below ~14 000MW throughout the winter period (to date) **while leveraging the improved performance** to conduct additional **short-term PCLF**
- **Two (Kendal & Kriel) out of three stations (incl. Tutuka) that have performed well in the last 6 months are led by women**
- **The fleet is in a more stable setting** going into the summer period of 2024, **compared to the summer of 2023**

The additional ~2500 MW capacity expected by the end of the financial year will contribute to security of supply



Units on long term outage - return to service dates

xxx Complete



Key insights

Kusile - Kusile U5 synced to the grid on 31 December 2023. Commercial Operation achieved on 30 June 2024 – **Completed**

Tutuka RTS dates

- Unit 4 planned outage for LP turbine rotor and HPH replacement - **Completed**
- Unit 5 on Major outage - **Completed**

Despite some delays, three units are still expected to return to service by the end of the financial year:

Kusile U6 sync experiencing some delays due to material availability and delays in acid clean. Current forecast for 1st sync date is Dec 2024

Medupi U4 - due to unexpected design issues related to second hand, RTS should be achieved by March 2025

Koeberg U2 weld defects on the main steam pipes requiring additional inspection and weld repairs. Revised date to cater for discoverables during commissioning

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The Generation fleet performance improvement allows us to focus on our long-term strategy to deliver a competitive, sustainable and future-proof Eskom



Pursue financial and operational sustainability (Fix the current business)

Recover EAF to **70% by March 2025**

Reduce **municipal arrear debt; rebase costs**

Improve controls to address **fraud, corruption and criminality**

Leadership stability, skills development & entrench an **ethical high-performance culture**



Facilitate a competitive future energy industry (Prepare for competition)

Obtain **unbundled tariffs approval** (Decision taken by NERSA)

NTCSA trading by 2024, **Operationalisation of Dx by April 2026**; Gx by FY2026 Q4

Accelerate clean energy project development

Fine-tune **Gx and Dx business models**



Modernise our power system (Leverage technology)

Accelerate TDP execution incl. alternative funding models

Distribution network development incl. **smart meters and microgrids**

Use data analytics to create value and enhance decision making

Increase **flexibility of power system infrastructure**



Strive for net zero emissions by 2050 (Transition responsibly)

Accelerate Komati, Grootvlei, Hendrina, Camden, Arnot, Kriel **repowering & repurposing** initiatives

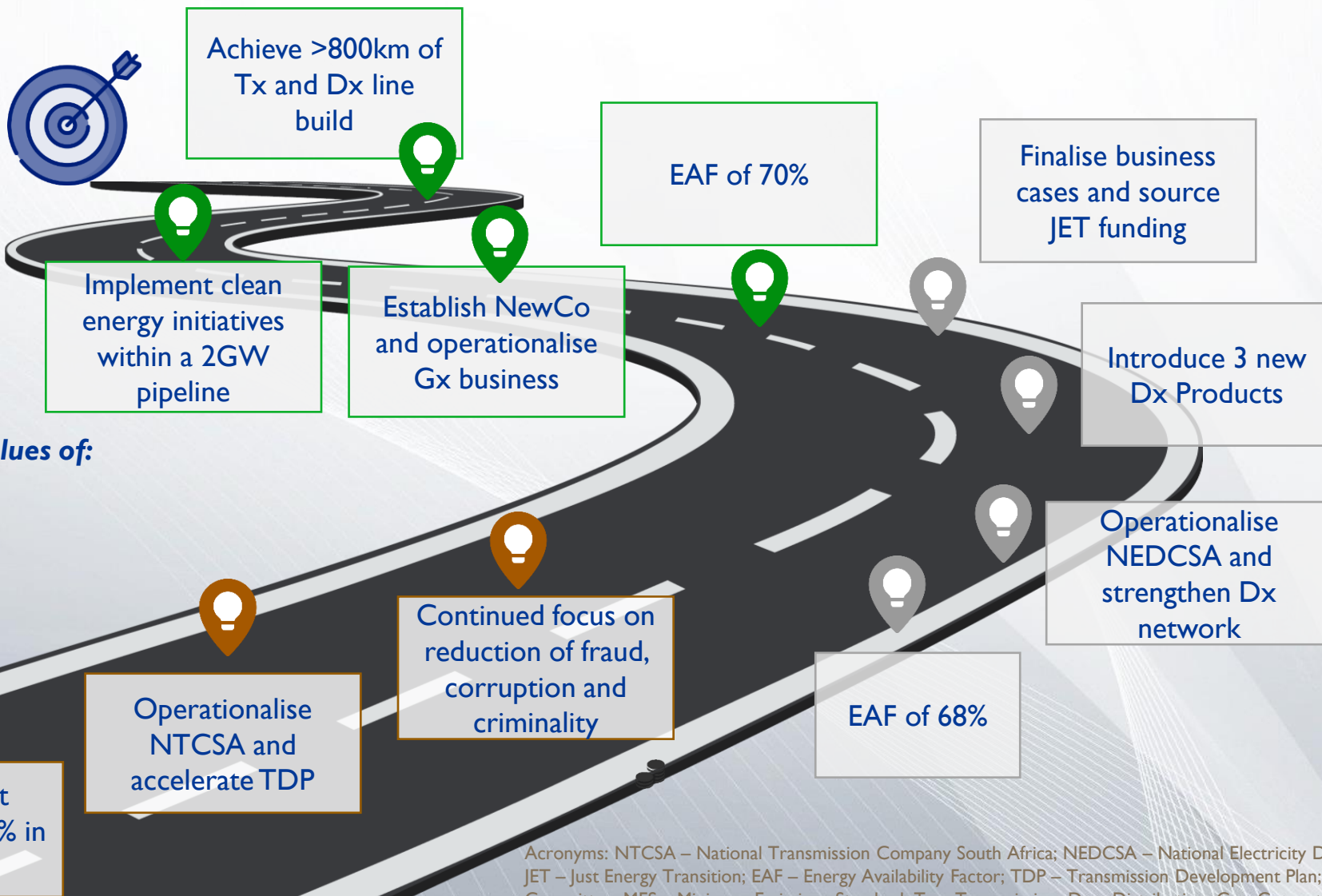
Collaborate with government on **optimised MES compliance**

Participate in **DERs and drive eMobility** (EV, EV charging infrastructure)

Key milestones over the next 36 months will be achieved through the systematic implementation of critical initiatives

📍 0-12 Months 📍 12-24 Months 📍 24-36 Months

**Sustainable power
for a better future**



Enabled by:

- Skills enhancement
- High performance culture
- Law enforcement support
- NECOM integration
- Policy alignment
- Localisation and industrialisation
- MES indulgence
- Partnerships and alternative funding

Underpinned by Eskom's values of:

- Zero Harm
- Innovation
- Integrity
- Sinobuntu
- Customer Satisfaction
- Excellence

- We have seen a **positive trend in the reduction of unplanned load losses, leading to 150+ consecutive days of no loadshedding**
- The Summer 2024/25 outlook has been revised (1500MW improvement), **indicating no loadshedding to be expected if unplanned losses remain below 13GW.**
- Through disciplined execution, dedication of our people and support from various stakeholders, **our Generation Recovery Plan continues to deliver good results**
- This performance has laid a **good foundation to implement our strategy towards a competitive, sustainable Eskom**
- Over the coming months, we will be providing updates against the **implementation of our strategic initiatives**
- **We would like to thank all stakeholders, especially the Eskom Guardians for their hard work and dedication in moving Eskom towards success**

